



State of Idaho

DEPARTMENT OF WATER RESOURCES

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DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

September 20, 2005

ROBERT DUKE
WATERMASTER
WATER DISTRICT NO 34
PO BOX 53
MACKAY ID 83251

Re: Diversion of Big Lost River Water in the Fall for Recharge

Dear Bob:

Last week, Loy Pehrson and I spoke about possible diversion of Big Lost River water this fall for recharge. Loy inquired whether the Idaho Department of Water Resources (IDWR) would recognize 2006 irrigation season mitigation credit for recharge in the fall of 2005. I told Loy I would consider the inquiry. Loy asked me to write a letter discussing my conclusions. You called me on Monday, September 20, 2005 and asked for a similar letter. This letter is a response to both inquiries.

The Water District 34 – Water Distribution Rules (the Distribution Rules) presently conclude that flows in the Big Lost River are depleted by 13% of the ground water pumped in the Big Lost River Basin. As a result, when mitigation is requested, the flows of the Big Lost River during the irrigation season must be augmented by additional water equal to 13% of the total ground water pumped during the same season. There are no provisions for determining multi-year depletions resulting from ground water pumping.

The Distribution Rules do not describe how flow augmentation credits will be given for recharge to ground water. Nonetheless, because the Distribution Rules establish a percentage relationship between ground water diversions and depletions, the same percentage should also apply to the reverse relationship between recharge and flow augmentation. As a result IDWR has given flow augmentation credit of 13% of the total water diverted for recharge. IDWR has not recognized a multi-year cumulative flow augmentation credit, however. Diversion of water for recharge in 2005 for 2006 augmentation credit asks for recognition of cumulative flow augmentation credit.

I believe there is a multi-year benefit to the Big Lost River by recharging ground water, just as I also believe there is a multi-year flow depletion resulting from ground water diversions. Science has not yet established these benefits and detriments, however.

Robert Duke
September 20, 2005
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Despite the above limitations to the recognition of multi-year detriments/benefits, IDWR has a responsibility to promote wise use and conservation of the water resources of the state. As part of the above stated responsibility, IDWR should encourage recharge of ground water where appropriate. If IDWR refused to recognize flow augmentation benefits in 2006 for recharge activities conducted during the fall of 2005, there would be substantially less incentive to recharge in the fall of 2005. As a result, until better information is available, IDWR will recognize as flow augmentation for the upcoming irrigation season, water delivered for recharge during the fall of the current year. Thirteen percent of the volume of surface water delivered and sunk into the ground will be recognized as flow augmentation credit during the following year.

Some conditions must be satisfied before credit for recharge can be recognized. The volume of surface water delivered must be accurately measured and recorded. Surface water flowing from the recharge site back to the Big Lost River must be accounted for and subtracted from the volume diverted. The watermaster must measure and determine these quantities in his delivery records.

In addition, delivery of Big Lost River water for recharge must be authorized by a water right that describes recharge as a beneficial use. Water District no. 34 owns two surface water rights for diversion of Big Lost River water for recharge. Other natural flow water rights or storage water rights can be used for recharge, but only if the water right is changed to recognize recharge as a beneficial use. The change authorizing recharge as a beneficial use can be accomplished by a transfer of the water rights, including a temporary transfer, or by leasing/renting the water rights through the Idaho State Water Resource Board's Water Supply Bank.

IDWR will not recognize flow augmentation credit for water delivered for irrigation that recharges the ground water during delivery. Even if water is delivered for irrigation and the water does not reach the headgate, the water is being delivered for irrigation, not for recharge, and IDWR will not recognize flow augmentation credit.

Sincerely,



Gary Spackman

c: Loy Pehrson
Big Lost Irrigation District
IDWR - Eastern Region